REMARKS

Favorable reconsideration of this application as presently amended and in light of the following discussion is respectfully requested.

After entry of the foregoing amendment, Claims 15-40 are pending in the present application. Claims 15-26 were previously presented, and new Claims 27-40 are added by the present amendment. Support for new Claims 27-40 can be found at least in the specification and claims as originally filed. Since all the elements of the claims were either earlier claimed or coextensive to the original field of search, Applicants respectfully request the Examiner enter the response on the record. The response will present the Applicants' position in letter form for appeal. No new matter is added.

Claims 15-26 are amended and new Claims 27-40 are added to set forth the present invention in a varying scope and/or to place the claims in better form for allowance or appeal. Applicants submit that the foregoing amendment will not require any additional searching or consideration by the Examiner, is not submitted to distinguish over the applied references, and does not present new issues. Thus, Applicants respectfully request that the Examiner enter the Amendment.

In the outstanding Office Action, Claims 15-26 were rejected under 35 U.S.C. § 103(a) as unpatentable over U.S. Patent 5,495,479 to Galaand in view of U.S. Patent 5,987,521 to Arrowood et al. (hereinafter "Arrowood").

Addressing now the rejection of Claims 15-26, under § 103(a) as unpatentable over Galaand in view of Arrowood, that rejection is respectfully traversed.

Independent Claim 15 is directed to an exemplary method of determining an explicit route of a network. The method includes:

gathering network information distributed by network devices;

determining a first explicit route with an explicit routing algorithm not distributed to the network devices, based on the network information;

checking the first explicit route based on the network information, for a first potential error; and

distributing the first explicit route to at least one network device of the network.

Independent Claims 21 and 38 recite similar features in different statutory classes and/or different scope. The remaining claims depend directly or indirectly from independent Claims 15, 21, and 38.

By way of background, the Internet utilizes well known distributed routing protocols to manage the routing of Internet Protocol ("IP") packets. In order to distribute new routing algorithms, enhanced local processing and memory requirements would be needed at each node. Likewise, the introduction of unfamiliar protocols complicates the administration of the network. The present invention is provided, in part, in view of these deficiencies.

In a non-limiting example, Applicants' Figure 1 illustrates an embodiment of the claimed invention. As shown, an External Routing Manager agent part ("ERMap") and corresponding Explicit Routing Algorithms ("ERA") are communicatively linked to the network of External Routing Manager routing parts ("ERMrp") via interactions RP2. To determine a new explicit route, the ERMap (1) receives a suggested explicit route from ERA via interaction RP1, (2) checks whether the explicit route is free of errors, and (3) distributes the explicit route to the ERMrp's via interactions RP2.[1] The ERMap executes each of the above functions based on network information (*e.g.*, network topology, network status) distributed from the ERMrp via a link-state distributed routing protocol.[2]

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[1] Specification, page 4, lines 27-36.
[2] Specification, page 5, lines 19-25.

In addition to the above functions, the ERMap can also determine alternative routes, which can be rapidly employed if a first explicit route (or a route determined in the ERMrp via a distributed routing protocol) should fail.[3] This can be achieved by distributing an alternative explicit route and corresponding condition (*i.e.*, "state") to an ERMrp or by simply preparing to distribute the alternative explicit route from the ERMap in advance of failure.[4]

The outstanding Office Action cites Galaand as teaching the claimed feature of distributing of a route determined by an explicit routing algorithm not distributed to network devices of the network.[5] More particularly, the Office Action cites the following passage:

> The invention is summarized as being a method for selecting a routing path *in an access node* in a packet switching communication network comprising a plurality of nodes interconnected with transmission links, said method involving the steps of: storing the network configuration; automatically pre-selecting a set of usable links for each destination node located in the network; storing locally said pre-selection of usable links; *determining, for each connection request between said access node and a destination node, a routing path* among said pre-selected usable links.[6]

The access nodes 202-205 that perform the emphasized determining step are a subset of network nodes 201-208. They are designated as "access nodes" simply because each of the nodes 202-205 includes a port for connecting a device to the network.[7] Each of the network nodes 201-208 includes a Routing Point where packets are selectively routed and a Route Controller 305 that computes a path route via a commonly distributed algorithm.[8] Thus, the access nodes 202-205 are typical local routers (*i.e.*, they each determine path routes via a unique algorithm that is distributed among routers of the network).

Applicants note that the present invention implements a centralized route management system, so that more robust algorithms (and faster processors) can be used to determine path

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[3] Specification, page 5, lines 26-29.
[4] Specification, page 5, line 29 – page 6, line 2.
[5] Office Action, 1/28/2004, page 2.
[6] Galaand, col. 7, line 54-64.
[7] Galaand, col. 8, line 56 – col. 9, lines 6.
[8] Galaand, col. 9, lines 55-61; col. 10, lines 31-55.

routes. Conversely, Galaand configures network topology, so that a unique algorithm of "access nodes" can be used to determine path routes.

Applicants note that the Arrowood does not remedy the deificiences discussed above.

Moreover, Applicants further note that the de-centralized route management system of Galaand teaches away from the combination of Arrowood's centralized system. Simply stated, Arrowood would introduce a centralized management to a de-centralized network. There is no motivation for such a fundamentally inconsistent combination. "A reference may be said to teach away when a person of ordinary skill in the art, upon reading the reference, would be discouraged from following the path set out in the reference, or would be led in a direction divergent from the path that was taken by the applicant." *In re Gurley*, 31 USPQ2d 1130, 1131 (Fed. Cir. 1994). To this end, "disclosures in the references that diverge from and teach away from the invention cannot be disregarded", Phillips Petroleum Company v. U.S. Steel Corp., 9 USPQ2d 1461 (Fed. Cir. 1989).
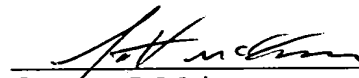
Accordingly, Applicants respectfully request that the rejection of Claims 15-26 under § 103(a) be withdrawn.

If the Applicants distinctions outlined above are not found persuasive, Applicants respectfully request the Examiner to rebut these distinctions in detail by way of an Advisory Action to facilitate the resolution of these issues on appeal. Additionally, Applicants request that the Examiner clarify the relevance of U.S. Patent No. 5,233,604, which is referred to in the rejections of record.

Consequently, in light of the above discussion and in view of the present amendment,

the present application is believed to be in condition for allowance, and an early and

favorable action to that effect is respectfully requested.

Respectfully submitted,

OBLON, SPIVAK, McCLELLAND,
MAIER & NEUSTADT, P.C.

Gregory J. Maier
Attorney of Record
Registration No. 25,599

Scott A. McKeown
Registration No. 42,866

Customer Number

22850

Tel: (703) 413-3000
Fax: (703) 413 -2220
(OSMMN 08/03)

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